

**Abstract**

Calls or other communications are processed in a system switch in accordance with a statistical control mechanism based on the assignment of weightings to call vectors or other processing scripts. The processing scripts specify operations to be performed in processing the communications in the switch, and each of at least a subset of the scripts in a set of processing scripts has a weighting associated therewith. A particular one of the processing scripts is selected for application to a given one of the communications in accordance with the assigned weightings, e.g., using a round-robin selection process. Advantageously, the assigned weightings are configured to provide a desired usage for each of the processing scripts over a given number of the communications, such that switch processing efficiency is improved, and load balancing across distributed switch processing elements is facilitated.